

Lenovo 7DCEA01WNA

Lenovo ThinkSystem ST250 V3 7DCEA01WNA Tower Server User Manual

Model: 7DCEA01WNA

1. PRODUCT OVERVIEW

The Lenovo ThinkSystem ST250 V3 is a versatile 1-socket tower server designed for small-to-medium businesses, remote offices, branch offices, and public sector applications. This server can also be rack-mounted, offering deployment flexibility. It supports Intel Xeon E-2400 Series processors, providing robust performance for various workloads.

This manual provides essential information for the safe and efficient setup, operation, and maintenance of your ThinkSystem ST250 V3 server.

2. WHAT'S IN THE BOX

Upon unpacking your Lenovo ThinkSystem ST250 V3 server, verify that all components are present. The standard package typically includes:

- Lenovo ThinkSystem ST250 V3 Server Unit
- Power Cable(s)
- Documentation (Quick Start Guide, Safety Information)
- SAS Controller (as specified in product configuration)
- Optional: Rack Mount Kit (if ordered)
- Optional: Keyboard, Mouse, Monitor (not typically included with server units)

If any items are missing or damaged, contact your vendor or Lenovo support immediately.

3. PRODUCT VIEWS AND COMPONENTS



Figure 3.1: Front View of the ThinkSystem ST250 V3 Server. This image displays the front panel of the server, showing the optical drive bay, front USB ports, power button, and the hot-swappable drive bays at the bottom.



Figure 3.2: Rear View of the ThinkSystem ST250 V3 Server. This image illustrates the rear panel, highlighting the power supply units, network ports, USB ports, VGA port, and expansion slots.



Figure 3.3: Side View of the ThinkSystem ST250 V3 Server. This image shows the left side panel of the server chassis, which is typically removable for internal access.

4. SETUP INSTRUCTIONS

4.1 Unpacking and Placement

1. Carefully remove the server from its packaging. Retain all packaging materials for future transport.
2. Place the server on a stable, level surface in a well-ventilated area. Ensure adequate clearance around the server for proper airflow.
3. If rack-mounting, refer to the optional rack mount kit instructions for proper installation into a server rack.

4.2 Connecting Peripherals and Power

- **Power:** Connect the power cable(s) to the server's power supply unit(s) and then to a grounded electrical outlet.
- **Network:** Connect Ethernet cables to the RJ-45 network ports on the rear of the server and to your network switch or router.
- **Display:** Connect a monitor to the VGA port on the rear panel.
- **USB Devices:** Connect a keyboard and mouse to the available USB ports.

4.3 Initial Power On

1. Press the power button on the front panel of the server.
2. Observe the power indicator lights and listen for fan activity.
3. The server will initiate the boot process. You may access the BIOS/UEFI setup utility by pressing the designated key (usually F1, F2, or Delete) during startup, as indicated on the screen.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off Procedures

- **Power On:** Press the power button on the front panel.
- **Normal Shutdown:** Initiate a shutdown from the operating system.
- **Forced Shutdown:** Press and hold the power button for approximately 5 seconds until the server powers off. Use this only when a normal shutdown is not possible.

5.2 Operating System Installation

The ThinkSystem ST250 V3 does not come with a pre-installed operating system. You will need to install a compatible server operating system (e.g., Windows Server, Linux distribution). Refer to the operating system's documentation for detailed installation steps. You can install from an optical drive, USB drive, or via network boot.

5.3 Remote Management

The server includes remote management capabilities (e.g., through an integrated management module). Consult the Lenovo documentation for your specific management controller for details on initial setup, network configuration, and remote access procedures.

6. MAINTENANCE

6.1 General Cleaning

- Ensure the server is powered off and disconnected from power before cleaning.
- Use a soft, dry cloth to wipe external surfaces.
- Periodically use compressed air to clear dust from ventilation grilles and internal components, taking care not to damage sensitive parts.

6.2 Firmware and Driver Updates

Regularly check the Lenovo support website for the latest firmware updates for the server BIOS/UEFI, RAID controller, network adapters, and other components. Also, ensure your operating system drivers are up to date for optimal performance and stability.

6.3 Component Replacement

The ThinkSystem ST250 V3 features hot-swappable drive bays, allowing for drive replacement without powering down the server in supported RAID configurations. For other components like memory modules, expansion cards, or power supplies, ensure the server is powered off and disconnected from power before performing any replacements. Refer to the detailed service manual for specific component replacement procedures.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter. For more complex problems, consult the comprehensive Lenovo ThinkSystem ST250 V3 documentation or contact technical support.

- **No Power:**
 - Verify power cables are securely connected to both the server and the power outlet.
 - Check if the power outlet is functional.
 - Ensure power supply units are properly seated.

- **Server Does Not Boot:**

- Check for any error messages on the display.
- Listen for beep codes, which can indicate specific hardware issues.
- Verify that memory modules and expansion cards are correctly seated.
- Ensure bootable media (OS drive) is detected and configured correctly in BIOS/UEFI.

- **Network Connectivity Issues:**

- Check Ethernet cable connections and ensure network lights are active.
- Verify network settings within the operating system.
- Confirm network switch/router is functioning correctly.

- **Drive Issues (e.g., drive not detected, RAID errors):**

- Check physical seating of drives in their bays.
- Consult the RAID controller documentation for status indicators and configuration.
- If a drive has failed, replace it with a compatible drive as per maintenance procedures.

8. SPECIFICATIONS

Lenovo ThinkSystem ST250 V3 7DCEA01WNA Key Specifications

Feature	Detail
Model	7DCEA01WNA
Form Factor	Tower (Rack-mountable)
Processor Support	1 x Intel Xeon E-2400 Series (E-2488 3.20 GHz Octa-core included)
Chipset	Intel C266
Standard Memory	16 GB TruDDR5 (Unbuffered ECC)
Maximum Memory	128 GB (4 DIMM slots)
Memory Clock Speed	4.80 GHz
Storage Controller	12Gb/s SAS (Model: 5350-8i)
Expansion Bays	10 Total (2x External 5.25", 8x Internal 2.5" SFF Hot-swappable)
Expansion Slots	4x PCIe slots (x4, x16, x4, x4)
Graphics Controller	Matrox G200 (16 MB)
Network	Gigabit Ethernet (2x RJ-45 ports)
USB Ports	7 Total (including 1x USB 2.0)
VGA Ports	1
Remote Management	Yes

Feature	Detail
Product Dimensions	23 x 7 x 18 inches
Item Weight	40 pounds

9. WARRANTY AND SUPPORT

9.1 Warranty Information

Your Lenovo ThinkSystem ST250 V3 server is covered by a limited warranty. The specific terms and duration of the warranty may vary by region and purchase agreement. Please refer to the warranty card included with your product or visit the official Lenovo support website for detailed warranty information.

9.2 Technical Support

For technical assistance, troubleshooting, or service requests, please contact Lenovo Technical Support. Before contacting support, have your server's model number (7DCEA01WNA) and serial number ready. You can find these details on a label on the server chassis.

Lenovo Support Website: support.lenovo.com

Additional support resources, including drivers, firmware, and comprehensive documentation, are available on the Lenovo support website.